

with delayed abdominal closure died before discharge from the hospital (four in the ruptured AAA group and one in the mesenteric revascularization group). No deaths were associated with clinical graft infection. In the 18 survivors, 16 were treated for ruptured AAAs. Mean follow-up of the surviving patients was 53 ± 24.2 months. Two patients died of cardiac causes at 13 and 34 months, and the remaining 16 were alive at the time data were collected for this report. No surviving patients have had clinical signs or symptoms of graft infection.

Comment: Abdominal compartment syndrome is now recognized as a contributor to mortality in patients treated for ruptured AAA. Early concerns about late graft infection in patients treated with open abdomens and newly implanted prosthetic grafts appear to be unfounded. Longer follow-up from multiple centers will be required to truly delineate the risk of late graft infection in patients managed with an open abdominal wound after implantation of an abdominal prosthetic graft. However, accumulating evidence in the short- and intermediate-term suggests the benefits of vacuum-packed temporary wound closure are real, and prosthetic graft infections very infrequent.

Waiting Times for Carotid Endarterectomy in UK: Observational Study

Halliday AW, Lees T, Kamugasha D, et al. *BMJ* 2009;338:b1847.

Conclusion: Only 20% of identified patients with symptomatic internal carotid artery (ICA) stenosis in the United Kingdom (UK) have surgery within the 2-week target timeline set by the National Institute for Health and Clinical Excellence (NICE).

Summary: Carotid endarterectomy (CEA) reduces the risk of stroke in patients with 50% to 99% ICA stenosis producing symptoms. Most benefit occurs when patients are operated on within the first 2 weeks of the onset of

symptoms (*Lancet* 2004;363:915-24). The authors note that delays to surgery have been reduced substantially in some centers in the UK (*Lancet* 2007;370:1432-42) but that overall performance in performing prompt CEA after symptoms is unknown. About 4500 CEAs are performed each year in the UK. The authors sought to identify the proportion of CEAs performed for symptomatic disease and the time from presentation of symptoms to performance of CEA in the UK.

The authors sought information from UK surgeons performing CEA between December 2005 and December 2007, and 240 consultant surgeons (61% of those eligible) from 102 hospitals (76%) took part. National hospital episodes statistics recorded 9913 CEAs, and 5513 were included in this study. Of the patients undergoing CEA, 83% had a history of transient ischemic attack or stroke. Of the patients who had symptoms, 20% had their operation ≤ 2 weeks of symptom onset, and 30% waited >12 weeks. Hospital operative mortality was 0.5%, and 30-day mortality was 1.0%.

Comment: The Department of Health in the UK recommends CEA be done ≤ 48 hours of symptoms in patients with transient ischemic attack or minor stroke who are neurologically stable (Department of Health, National Stroke Strategy 2007; www.dh.gov.uk/publications). Recommendations and actual clinical practice appear discordant. The article indicates that there are delays in the performance of CEA for symptomatic patients but does not indicate the reasons for delay or if additional events occurred while the patients waited for their operation. A similar study from Canada (*Stroke* 2009;40:2776-82) that used data from 12 stroke centers in Ontario showed only about one-third of the patients underwent CEA within the recommended 2-week target time frame. In 25% surgery was delayed >3 months.

American surgeons should note that almost all patients undergoing CEA in the UK do so for symptomatic disease. In some states in the United States, $>90\%$ of CEAs are performed for asymptomatic disease. Carotid stenosis is either being vastly over-treated or vastly under-treated on the opposite sides of the Atlantic.